APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,424	09/08/2000	Changming Liu	09725-005001	2970

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EXAMINER
ENGLAND, DAVID E

ART UNIT	PAPER NUMBER
2143	8

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No	Applicant(s)
Office Action Summary	09/658,424	LIU ET AL.
	Examiner	Art Unit
	David E. England	2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *08 September 2000*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-15* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-15* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *11 March 2002* is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 15 are presented for examination.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plurality of the guaranteed bandwidth buckets must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.   Claims 1 – 3, 5 – 10 and 12 – 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Troxel U.S.

Patent No. 6185210.

4.   Referencing claim 1, as closely interpreted by the Examiner, Troxel teaches a method for allocating

bandwidth in a network appliance where the network appliance includes a plurality of guaranteed bandwidth

buckets used to evaluate when to pass traffic through the network appliance, the method comprising:

5.   Providing a shared bandwidth bucket associated with a plurality of the guaranteed bandwidth buckets,

(e.g. col. 15, line 57 – col. 16, line 67, *"Token buckets 1 and 3 ... "*);

6.   Allocating bandwidth to the shared bandwidth bucket based on the underutilization of bandwidth in the

plurality of guaranteed bandwidth buckets, (e.g. col. 15, line 57 – col. 16, line 67, *"Token buckets 1 and 3 ... "* &

col. 17, lines 8 – 51, *"...added to the bucket"*); and

7.   Sharing excess bandwidth developed from the underutilization of the guaranteed bandwidth allocated to

the individual guaranteed bandwidth buckets including borrowing bandwidth from the shared bandwidth bucket

by a respective guaranteed bandwidth bucket to allow traffic to pass immediately through the network

appliance, (e.g. col. 15, line 57 – col. 16, line 67, *"Token buckets 1 and 3 ... "* & col. 17, lines 8 – 51, *"...added*

to the bucket");

8.   Referencing claim 2, Troxel teaches the shared bandwidth bucket is a token bucket, (e.g. col. 15, line 57

– col. 16, line 67, *"Token buckets 1 and 3 ... "*).

9.   Referencing claim 3, Troxel teaches the guaranteed bandwidth buckets are token buckets, (e.g. col. 15,

line 57 – col. 16, line 67, *"Token buckets 1 and 3 ... "*).

10.   Referencing claim 5, Troxel teaches each guaranteed bandwidth bucket is associated with a traffic shaping policy, (e.g. col. 15, line 57 – col. 16, line 67, *"traffic policy"* & col. 17, lines 8 – 51, *"traffic policy"*).

11.   Referencing claim 6, Troxel teaches a plurality of guaranteed bandwidth buckets are associated with a single traffic shaping policy, (e.g. col. 15, line 57 – col. 16, line 67, *"traffic policy"* & col. 17, lines 8 – 51, *"traffic policy"*).

12.   Referencing claim 7, Troxel teaches the traffic shaping policy screens based on IP address, (e.g. col. 17, lines 8 – 51, *"IP"*).

13.   Referencing claim 8, Troxel teaches the traffic shaping policy screens based on the source IP address, (e.g. col. 11, line 11 – col. 12, line 2).

14.   Referencing claim 9, Troxel teaches the traffic shaping policy screens based on the destination IP address, (e.g. col. 11, line 11 – col. 12, line 2).

15.   Referencing claim 10, Troxel teaches the traffic shaping policy screens based on the protocol type, (e.g. col. 11, line 11 – col. 12, line 2, *"IP/IP & IP/ATM"*).

16.   Referencing claim 12, Troxel teaches the traffic shaping policy screens based on the type of service requested, (e.g. col. 11, line 11 – col. 12, line 2).

17.   Referencing claim 13, Troxel teaches the traffic shaping policy screens based on the traffic content, (e.g. col. 11, line 11 – col. 12, line 2).

18.   Claims 14 and 15 are rejected for similar reasons as stated above.

Claim Rejections - 35 USC § 103

19.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set

forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this
> title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter
> pertains. Patentability shall not be negatived by the manner in which the invention was made.

20.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Troxel (6185210) in view of

Applicant's admitted prior art.

21.   As per claim 4, Troxel does not specifically teach the guaranteed bandwidth buckets are credit/debit

buckets. Applicant's admitted prior art suggests the use of credit/debit buckets being a modified type of token

buckets, (e.g. page 2). It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the Applicant's admitted prior art with Troxel because using credit/debit buckets instead

token buckets give the system more versatility that token buckets cannot perform, (i.e. credit/debit tokens

bucket can be negative).

22.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Troxel (6185210) in view of

Makrucki (6208622).

23.   As per claim 11, Troxel does not specifically teach the traffic shaping policy screens based on the

UPD/TCP port number. Makrucki teaches the traffic shaping policy screens based on the UPD/TCP port

number, (e.g. col. 1, line 47 – col. 2, line 33, *"TCP/IP, the routing algorithm"*). It would have been obvious to

one of ordinary skill in the art at the time the invention was made to combine Makrucki with Troxel because it

would be more efficient for a system to utilize a widely use protocol that most system use than have different

protocols that a foreign network is unfamiliar with and will not be able to understand the packet's format.

Conclusion

24.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

25.   a.   Lyon et al. U.S. Patent No. 6028841 discloses Distributed bus throttle and method.

26.   b.   Ginzboorg et al. U.S. Patent No. 6349088 discloses Traffic measurement in a communication

system.

27.   c.   Wilford et al. U.S. Patent No. 6687247 discloses Architecture for high speed class of service

enabled linecard.

28.   d.   Jones U.S. Patent No. 6044060 discloses Traffic shaping ATM network switch.

Any inquiry concerning this communication or earlier communications from the examiner should be

directed to David E. England whose telephone number is 703-305-5333. The examiner can normally be

reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A.

Wiley can be reached on 703-308-5221. The fax phone number for the organization where this application or

proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-

9197 (toll-free).

David E. England
Examiner
Art Unit 2143

De

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